

## ABSTRACT

A user equipment (UE) is capable of receiving and transmitting communication signals in a time division duplex using code division multiple access format. The UE receives a primary code synchronization (PSC) signal, the PSC signal is received in a selected time slot in a PSC channel. Secondary synchronization signals are identified. The secondary synchronization signals are received along with the PSC signal. An assigned code group and the selected time slot is determined based on the identified secondary synchronization signals. The assigned code group is out of a predetermined number  $N$  of possible code groups. Each combination of the  $N$  code groups and the selected time slot associated with a unique combination of secondary signals from a set of secondary signals which does not exceed  $(\log_2 N) + 1$  in number.